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Deputy Assistant Director for Communications

Deputy Chief, Engineering Division

Subj: Commo

TSS/Commo Meeting of 12 January 1954.

1. The first of a series of meetings between TSS and OC-E was held on Tuesday, 12 January 1954 at 2 p.m. in the TSS offices. Present from TSS were the following:

, Chief, Applied Physics Division
Deputy Chief, Applied Physics Division
Applied Physics Division

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Representing OC-E were . Similar meetings will be held monthly and will be supplemented by additional conferences as necessary between regularly scheduled meetings.

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2. The following subjects were discussed in some detail. TSS indicated that were both doing some equipment development for TSS, utilizing transistors. is producing a 5 to 11 MC receiver, one model of which has already been tested by the Communications Research and Development Laboratory. TSS is not overly enthusiastic about the performance of this receiver but indicates that it may be useful for some purposes such as throw-away receivers, etc. The development is directed towards the production of a 100 MC transmitter with approximately 30 milliwatt output. This transmitter would be used in surveillance operations. A similar transistorized transmitter is to be constructed by . No details on the latter unit were obtained. who act as a cut out for TSS, is having a time-signal receiver built that is a single frequency unit operating on 5 MC to permit reception of time signals. TSS also stated that is working on audio units, preamplifiers and related equipments which can be used as surveillance devices.

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INFRARED

TSS expects to receive five sets of infrared communications equipment within approximately 120 days, each set being a two-way system. This infrared communications equipment is expected to have a range of approximately 400 ft. The contractor for this equipment is the Shops. A second infrared development contract is held by . This equipment, which will be delivered in approximately one year, will have a six mile minimum range. One end of this system will consist of two units, each approximately 1 cubic foot in size.

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BEACONS

[redacted] stated that the only beacon programs they have at present are those of the radar type. One contract which they have been following is the Air Force one with Air-borne Instrument Laboratory, Mineola, New York. Ten units of this X-band transponder have been delivered to the Air Force. It was mentioned that Yardney silvercells were used as a power supply for the ground equipment and that some difficulties had been experienced due to the failure of these cells. [redacted] is conducting additional studies on beacons for TSS. 50X1 50X1

VHF TRANSCEIVERS

TSS and the FBI have consolidated their requirements for surveillance type VHF transceivers and have placed contracts with the [redacted] for delivery of such equipments. The power output of these transceivers will be in the vicinity of 50 milliwatts; these sets are similar in many respects to the Motorola "Handy-Micro-Talkie" Model No. X13T-1 and X13T-2 which were investigated some time ago by OC-E. The latter sets proved to be transmitters only and would thus have limited applications for communications purposes. However, the transceivers now being developed for TSS may be of possible utility in border crossing operations, and this development will therefore be closely monitored by OC-E. 50X1

BATTERY/GENERATOR PROBLEMS

[redacted] indicated that he believed it desirable for appropriate representatives at TSS and OC-E/R&D to exchange information on storage and dry battery developments and hand or gasoline powered generators. He felt that such an exchange of information would benefit both parties since neither organization can devote the full time services of an engineer to these problems. 50X1

3. During the course of our discussions with [redacted], it became apparent that a considerable amount of our liaison with TSS should be conducted with the Audio Support Division of that organization. At the conclusion of our talk with [redacted] we met briefly with [redacted] Chief, Audio Support Division of TSS, who was most cordial and quite willing to talk business. 50X1 50X1

[redacted] introduced [redacted], Chief of the Engineering Branch of ASD, who turned out to be an old Navy buddy of [redacted] (we anticipate excellent future relationships with [redacted]. In view of the late hour, arrangements were made to inspect existing ASD equipment at a later date and at the same time to go over the plans for future developments including VHF transceivers and pocket recording devices. 50X1 50X1 50X1

SECRET

4. Both [redacted] voiced the opinion that closer liaison between TSS and Commo in the future would serve to minimize or eliminate the so-called "gray areas" now in existence. With reference to one particular segment of this gray area, VHF border crossing transmitters, I expounded to both gentlemen individually the philosophy that such activities involving the transmission of operational intelligence or intelligence incidental thereto are considered to be in the province of the Office of Communications in order that (a) cryptographic security may be maintained and (b) radio transmission security may be afforded. It was mutually agreed that the employment of VHF transceivers for surveillance type activities would normally not require coordination with the Office of Communications; 50X1

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5. [redacted] has asked that the next meeting of the liaison group be deferred until after 25 February to permit his attending. We plan to have the next meeting in the Engineering Offices at Alcott Hall. We shall ask that representatives from both the Applied Physics Division and the Audio Support Division of TSS be present at our next meeting. 50X1

[redacted] 50X1

OC-E/BBB:js (19 January 1954)

cc: TSS (2)
AD/CO (1)
OC-E/R&D (1)
Chrono